

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 19 depends from canceled claim 1, and therefore is indefinite. For the purpose of examination, claim 19 was believed to depend from claim 13.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 13 and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uno *et al.* (US 2002/0188073) in view of Joachimi *et al.* (US 2003/0130381).

Regarding claims 13, 15, and 19: Uno *et al.* teaches a polyester molding composition (¶ 11, 90, 93, 96) comprising 30 to 95 parts by weight PBT (¶ 24-25, 27), 1-30 parts by weight of polyester elastomer (¶ 32), and 1-30 parts by weight polycarbonate {total is 100 parts by weight} {based on total of resin} (¶ 1-2, 11-15, 20).

Uno *et al.* does not teach aromatic polycarboxylic acid ester plasticizer in an amount of 1 to 10 parts by weight. However, Joachimi *et al.* teaches a moulding composition (¶ 1, 26-31) comprising polybutylene terephthalate (¶ 42, 47-48, 50-51, 53, 102) and polycarbonate (¶ 54; 102), in an amount of 35 to 99.999 wt% (¶ 27); an elastomer (¶ 32-34, 115, 125-128), in an amount of 0 to 30 wt% (¶ 30); and a plasticizer (¶ 117, 124) in an amount of 0 to 30 wt% (¶ 30), specifically dioctyl phthalate {phthalic acid dioctyl ester} (¶ 124), which has an index of refraction of 1.49 [instant claim 15]. Uno *et al.* and Joachimi *et al.* are analogous art because they are concerned with a similar technical difficulty, namely the preparation of PBT/PC/elastomer moldings. At the time of invention a person of ordinary skill in the art would have found it obvious to have combined 0 to 30 wt% dioctyl phthalate, as taught by Joachimi *et al.* in the invention of Uno *et al.*, and would have been motivated to do so since Joachimi *et al.* suggests that dioctyl phthalate is a suitable plasticizer for PBT/PC/elastomer molding material (¶ 117, 124).

Uno *et al.* does not teach laser welding of a molded product and counterpart, wherein the first molded product is in contact with the laser beam {laser transparent} and the counterpart is located on the receiving side [instant claim 13]. However, Joachimi *et al.* teaches laser welding

of a molded product and counterpart (¶ 1, 24-30, 42, 139-149, 155-161), wherein the first molded product is in contact with the laser beam {laser transparent} and the counterpart is located on the receiving side [instant claim 13] (¶ 160-161, tables 5 and 6). Joachimi *et al.* teaches utilizing a Nd:YAG laser {1064 nm} for welding polyester rods {molded products} of varying thickness (0.8 mm to 3.2 mm) (¶ 138-141; 146-147; 154-156; 158) Uno *et al.* and Joachimi *et al.* are analogous art because they are concerned with a similar technical difficulty, namely the preparation of PBT/PC/elastomer moldings. At the time of invention a person of ordinary skill in the art would have found it obvious to have laser welded a molded product and counterpart, wherein the first molded product is in contact with the laser beam {laser transparent} and the counterpart is located on the receiving side, as taught by Joachimi *et al.* in the invention of Uno *et al.*, and would have been motivated to do so since Joachimi *et al.* suggests that laser welding of {PBT/PC/elastomer} molding compositions allows the production of molded parts having a high surface quality that can be reliably joined to laser transparent molded parts by a laser welding process (¶ 24).

The Office realizes that all the claimed effects or physical properties are not positively stated by the reference. However, the reference teaches all of the claimed reagents and was prepared under similar conditions. Therefore, the claimed effects and physical properties, i.e. a laser weldable resin composition [instant claim 13]; a fluctuation range of light transmittance is not more than 10% [instant claim 19], would implicitly be achieved by a composition with all the claimed ingredients. If it is the applicants' position that this would not be the case: (1) evidence would need to be presented to support applicant's position; and (2) it would be the Office's

position that the application contains inadequate disclosure that there is no teaching as to how to obtain the claimed properties and effects with only the claimed ingredients.

Regarding claims 16-17: Uno *et al.* teaches a glass fibers and glass flakes {glassy filler} [instant claim 16-17] (¶ 35, 38).

Regarding claim 18: Uno *et al.* teaches a nucleating agent (¶ 42, 46).

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Uno *et al.* (US 2002/0188073) in view of Joachimi *et al.* (US 2003/0130381), as applied to claim 13 above, in further view of Houston *et al.* (US 2002/0190408).

Regarding claim 14: Uno *et al.* and Joachimi *et al.* renders the basic claimed process obvious [as set forth above with respect to claim 13].

Uno *et al.* does not teach an elastomer with a refractive index of 1.52 to 1.59. However, Houston *et al.* teaches the refractive index of an elastomer should be chosen to produce an iso-refractive system between the two phases present in order to minimize light scattering (¶ 54). Uno *et al.* and Houston *et al.* are analogous art because they are concerned with a similar technical difficulty, namely the preparation of plasticized thermoplastic-elastomer moldings (¶ 1, 52). At the time of invention a person of ordinary skill in the art would have found it obvious to have combined elastomers having an refractive index to create an iso-refractive system, as taught by Houston *et al.* in the invention of Uno *et al.*, and would have been motivated to do so since Houston *et al.* suggests that matching the refractive indexes of the phases {elastomeric and thermoplastic} provides materials with reduced light scattering (¶ 54).

***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 13 and 16-19 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-14 of U.S. Patent No. 7,396,428.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed laser welding process and PBT resin molded product substantially overlap in scope.

***Response to Arguments***

The rejection of claim 13 based on Uno *et al.* (US 2002/0188073) and Joachimi *et al.* (US 2003/0130381) is maintained for reason of record and following response.

Uno *et al.* (US '073) discloses a polyester molding composition comprising 30 to 95 parts by weight PBT {copolymer of terephthalic acid, isophthalic acid (3-30 mol%), and 1, 4-

butanediol} (¶24-25, 27), 1-30 parts by weight of polyester elastomer (¶32), and 1-30 parts by weight polycarbonate {total is 100 parts by weight} {based on total of resin} (¶ 1-2, 11-15, 20).

Uno *et al.* (US '073) is silent to use of plasticizers. Dioctyl phthalate is a well known plasticizer, and Joachimi *et al.* (US '381) discloses plasticizers (¶ 117, 124) in an amount of 0 to 30 wt% (¶ 30), specifically dioctyl phthalate in a similar molding composition. Although Uno *et al.* (US '073) is silent to laser welding, the combined teachings of Uno *et al.* (US '073) and Joachimi *et al.* (US '381) would afford a PBT/PC/elastomer molding composition which would be capable of undergoing a laser welding procedure. Furthermore, Joachimi *et al.* (US '381) clearly discloses polybutylene terephthalate as a candidate for a thermoplastic laser weldable composition (¶ 42, 47-48, 50-51, 53, 102), i.e. the prior art discloses laser welding compositions comprising PBT and PC (¶ 102). Additionally, Joachimi *et al.* (US '381) discloses injection molding the laser weldable polyester resin composition prior to laser welding (¶ 138-141; 146-147; 154-156; 158), and Uno *et al.* (US '073) teaches a polyester injection molding compositions (¶ 11, 90-93, 96); as a result, one having skill in the art would recognize injection moldable polyester resins as candidates for laser welding, and would utilize the composition of Uno *et al.* (US '073), having excellent chemical resistance and mechanical strength, in the laser welding process of Joachimi *et al.* (US '381) {the combined teaching would afford molded parts having excellent chemical resistance, mechanical strength, and a high surface quality that can be reliably joined to laser transparent molded parts by a laser welding process}.

In response to applicant's argument that the PBT copolymer of Uno *et al.* (US '073) is used for improvement of the alkali resistance and moldability; and that the PBT-series copolymer of the instant invention is for laser welding, a recitation of the intended use of the

claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Houston *et al.* (US '408) is relied upon for production of an iso-refractive system such that light scattering between phases {thermoplastic and elastomer phases} is reduced. The scattering of light (laser light) would be problematic for a molding composition which will undergo a laser welding process.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

A showing of unexpected results {the composition uniformly welded to a counterpart material} must be based on evidence, not argument or speculation. *In re Mayne*, 104 F.3d 1339, 1343-44, 41 USPQ2d 1451, 1455-56 (Fed. Cir. 1997) [See MPEP 2145].

The nonstatutory obviousness-type double patenting rejection was maintained, as a Terminal Disclaimer was not received.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL PEPITONE whose telephone number is (571)270-3299. The examiner can normally be reached on M-F, 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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MFP  
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